



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

**Information Application**

Inventors: Cooper, et al.  
Appl. No.: 10/678,935  
Confirm. No.: Unknown  
Filed: October 3, 2003  
Title: METHODS AND SYSTEMS FOR  
DISCRIMINATIVE KEYFRAME SELECTION

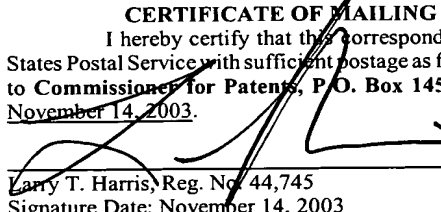
**PATENT APPLICATION**

Art Unit: Unassigned  
Examiner: Unassigned

**Customer No. 23910**

**CERTIFICATE OF MAILING UNDER 37 C.F.R. § 1.8**

I hereby certify that this correspondence is being deposited in the United States Postal Service with sufficient postage as first class mail in an envelope addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on November 14, 2003.

  
Larry T. Harris, Reg. No. 44,745  
Signature Date: November 14, 2003

(Attorney Signature)

**INFORMATION DISCLOSURE STATEMENT UNDER 37 C.F.R. §1.56**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

It is requested that the information identified in this statement be considered by the Examiner and made of record in the above-identified application. This statement is not intended to represent that a search has been made or that the information cited in the statement is, or is considered to be, material to patentability as defined in 37 C.F.R. §1.56. If this is a continuation, divisional or continuation-in-part application, it is understood that the Examiner will consider all information which was considered by the Office in a parent application. MPEP §609. Such information therefore is not listed herein unless it is desired that the information be printed on a patent issuing from the subject application.

***Enclosed with this statement are the following:***

- ☒ Form PTO-1449. The Examiner is requested to initial the form and return it to the undersigned in accordance with M.P.E.P. §609.
- ☒ The present application was filed after June 30, 2003. In accordance with the pre-official gazette waiver of 37 CFR 1.98 (a)(2)(i) posted at: [pac/dapp/opla/preognotice/idswouscopies.htm](http://pac/dapp/opla/preognotice/idswouscopies.htm), copies of cited U.S. patents are not enclosed. However, copies of cited foreign patent documents and non-patent literature are enclosed in accordance with 37 CFR 1.98(a)(2), as still required.
- ☐ ***PTA Statement under 37 C.F.R. §1.704(d).*** Each item of information contained in the *Information Disclosure Statement* was cited in a communication from a foreign patent office in a counterpart application and this communication was not received by any individual designated in §1.56(c) more than thirty days prior to the filing of the *Information Disclosure Statement*.

***This statement should be considered because:***

☒ **37 C.F.R. §1.97(b).** This statement qualifies under 37 C.F.R. §1.97, subsection (b) because:

- (1) It is being filed within three months of the filing date of an application other than a continued prosecution application under § 1.53(d);  
-- OR --
- (2) It is being filed within 3 months of entry of a national stage;  
-- OR --
- (3) It is being filed before the mailing date of the first Office Action on the merits,  
-- OR --
- (4) It is being filed before the mailing date of the first Office Action after the filing of a Request for Continued Examination under 37 C.F.R. §1.114.

☐ **37 C.F.R. §1.97(c).** Although it may not qualify under subsection (b), this statement qualifies under 37 C.F.R. §1.97, subsection (c) because:

- (1) It is being filed before the mailing date of a FINAL Office Action, a Notice of Allowance, or an action that otherwise closes prosecution in the subject application, whichever occurs first.  
-- AND (check at least one of the following) --  
☐ (1) It is accompanied by a STATEMENT as set forth in 37 C.F.R. §1.97(e).  
-- OR --  
☐ (2) It is accompanied by the \$180 fee set forth in 37 C.F.R. §1.17(p).

☐ **37 C.F.R. §1.97(d).** Although it may not qualify under subsection (b) or (c), this statement qualifies under 37 C.F.R. §1.97, subsection (d) because:

- (1) It is being filed on or before payment of the Issue Fee;  
-- AND --
- (2) It is accompanied by a STATEMENT as set forth in 37 C.F.R. §1.97(e);  
-- AND --
- (3) It is accompanied by the \$180 fee set forth in 37 C.F.R. §1.17(p).

☒ **Fee Authorization.** The Commissioner is hereby authorized to charge any deficiencies or credit any overpayment to Deposit Account No. 06-1325. A duplicate copy of this authorization is enclosed.

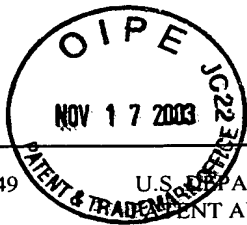
Date: 11/14/07

Respectfully submitted,

By: 

Larry T. Harris  
Reg. No. 44,745

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Form PTO-1449 (Substitute)		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		Attorney Docket Number FXA3001		Serial/Patent Number 10/678,935	
<b>Information Disclosure Statement</b> <b>BY APPLICANT</b> (Use several sheets if necessary)				Applicant/Patent Owner Cooper, et al.			
				Filing/Issue Date October 3, 2003		Group Art Unit Unassigned	
<b>U.S. PATENTS</b>							
Examiner Initial		Patent Number	Issue Date	First Named Inventor	Class	Subclass	Filing Date
<b>U.S. PATENT PUBLICATIONS</b>							
Examiner Initial		Patent Application Publication Number	Publication Date	Applicant			
<b>PENDING U.S. PATENT APPLICATIONS</b>							
Examiner Initial		Application Number	Filing Date	First Named Inventor	Petition to Expunge? Yes   No		
	1.	10/086,817	2/28/02	Jonathan T. Foote		✓	

<b>FOREIGN PATENT DOCUMENTS</b>							
Examiner Initial		Document Number	Publication Date	Country	Class	Subclass	Trans- lation Yes   No
<b>OTHER DOCUMENTS</b> (Include author (if any), title, publisher and place of publication, date and pertinent pages)							
	2.	S. Robertson and K. Jones, "Simple, proven approaches to text retrieval," <i>Tech. Rep. TR356, Cambridge University Computer Laboratory</i> , 1997, <a href="http://citeseer.nj.nec.com/robertson97simple.html">http://citeseer.nj.nec.com/robertson97simple.html</a>					
	3.	M. Cooper and J. Foote, "Scene Boundary Detection Via Video Self-Similarity Analysis," <i>Proc. IEEE Intl. Conf. on Image Processing</i> , 378-81, 2001.					
	4.	Ohta, Y-I, Kanade, T., and Sakai, T., "Color Information for Region Segmentation," <i>Comp. Graphics &amp; Image Processing</i> , 13:222-241, 1980.					
	5.	R. Duda and P. Hart, "Pattern Classification and Scene Analysis," <i>Wiley-Interscience</i> , 130-159, 1973.					
	6.	M. W. Berry, S. T. Dumais, and G. W. O'Brien, "Using Linear Algebra for Intelligent Information Retrieval," <i>SIAM Review</i> , 37(4):573-595, 1994.					
	7.	A. Girgensohn, J. Boreczky, and L. Wilcox, "Keyframe-Based User Interfaces for Digital Video," <i>IEEE Computer</i> , September, 2001.					
	8.	A. Girgensohn and J. Boreczky, "Time-Constrained Keyframe Selection Technique," <i>Proc. IEEE Multimedia Systems</i> , vol. 1, pp. 756-761, 1999.					

OTHER DOCUMENTS (Include author (if any), title, publisher and place of publication, date and pertinent pages)		
9.	S. Uchihashi and J. Foote, "Summarizing Video Using a Shot Importance Measure and a Frame-Packing Algorithm," in <i>Proc. ICASSP '99</i> , Vol. 6, pp. 3041-3044, 1999.	
10.	M. Christel, et al., "Evolving Video Skims into Useful Multimedia Abstractions," <i>Proc. ACM CHI</i> , pp. 171-8, 1998.	
11.	Q. Huang, Z. Liu, and A. Rosenberg, "Automated Semantic Structure Reconstruction and Representation Generation for Broadcast News," <i>Proc. SPIE Storage &amp; Retrieval for Still Image and Video Databases</i> , 1994.*	
12.	H. Aoki, S. Shimotsuji, and O. Hori, "A Shot Classification Method of Selecting Effective Key-Frames for Video Browsing," <i>Proc. ACM Multimedia</i> , 1996.	
13.	J. Vermaak, P. Perez, M. Gangnet, and A. Blake, "Rapid Summarisation and Browisng of Video Sequences," <i>Proc. British Machine Vision Conference</i> , 2002.	
14.	J. Peltonen, J. Sinkkonen, and S. Kaski, "Discriminative Clustering of Text Documents," <i>Proc. IEEE Intl. Conf. on Neural Information Processing</i> , vol. 4, pages 1956-1960, 2002.	
Examiner		Date Considered
<p>*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.</p>		
<p>*1 = Copy not submitted because it was submitted in prior application SN <u>  </u> / <u>  </u>, filed <u>  </u>, 20<u>  </u>, relied on under 35 USC §120.</p>		
<p>*2 = Copy not submitted because it was submitted in prior application SN <u>  </u> / <u>  </u>, filed <u>  </u>, 20<u>  </u>, relied on under 35 USC §120.</p>		

## REMARKS

The following Remarks are supplied as part of or in supplement to this *Information Disclosure Statement*.

\*Reference No. 11 (Q. Huang, Z. Liu, and A. Rosenberg, "Automated Semantic Structure Reconstruction and Representation Generation for Broadcast News," *Proc. SPIE Storage & Retrieval for Still Image and Video Databases*), dated January 1999, is believed to be a duplicate copy of Q. Huang, Z. Liu, and A. Rosenberg, "Automated Semantic Structure Reconstruction and Representation Generation for Broadcast News," *Proc. SPIE Storage & Retrieval for Still Image and Video Databases* dated 1994.

However, Applicant is attempting to obtain a copy of the actual 1994 article and if it is not a duplicate, will submit the 1994 article in a subsequent Information Disclosure Statement.